

METHOD AND APPARATUS FOR TRANSFERRING MULTIPLE PACKETS FROM HARDWARE

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ABSTRACT

A method and apparatus for facilitating transfer of packets from communication hardware (e.g., a network interface circuit) to a host computing device or software executing on the device (e.g., a device driver). If header splitting is enabled, packet headers are packed in a hybrid buffer while payloads are stored in payload
10 buffers. For each packet, one or more completion lines are written in the hybrid buffer. One type of completion line identifies the payload buffer in which payloads of one or more subsequent packets are stored. Another, per-packet, type of completion line indicates the length of a packet's header in the hybrid buffer and the length and/or offset of the packet's payload in a payload buffer. A null
15 completion line indicates that no more completion lines or packet headers are stored in the buffer. Without header splitting, entire packets are stored in the same buffer as their corresponding completion lines.